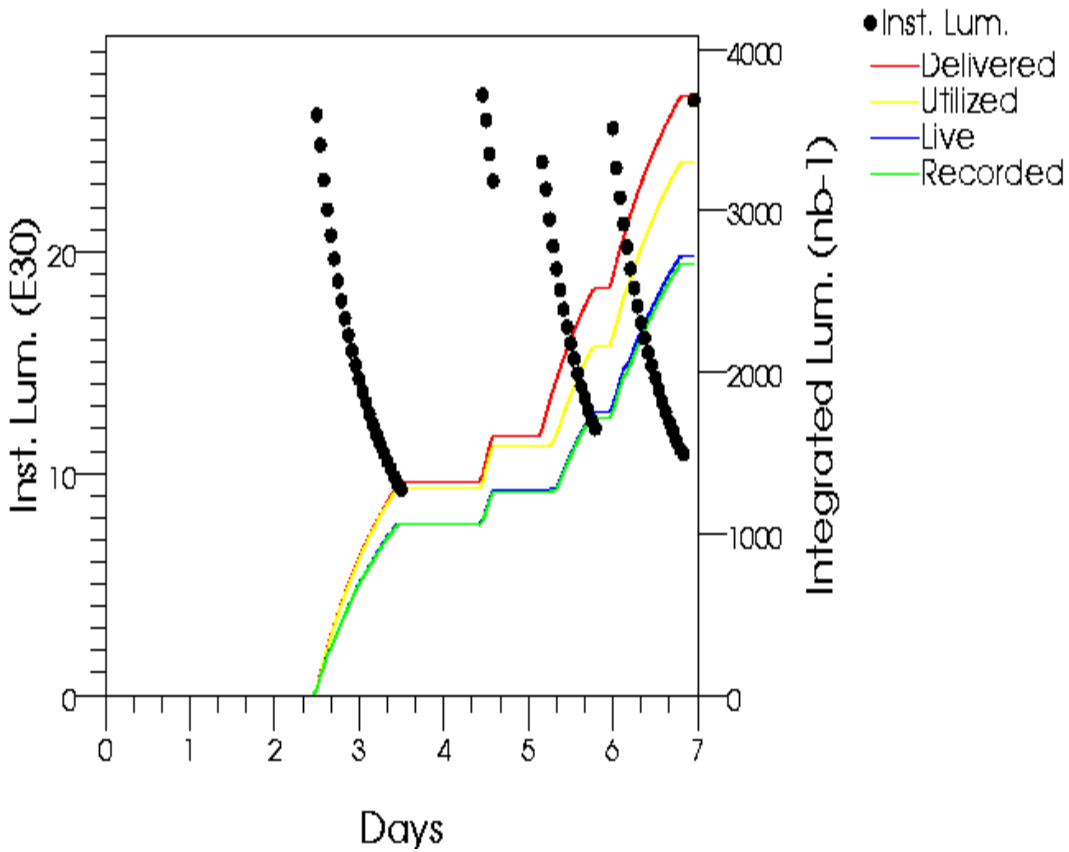
Week of November 18 to November 24 D0 Summary

- Delivered luminosity and operating efficiency
  - Delivered: 3.7pb^{-1}
  - Recorded: 2.7pb^{-1} (72%)
- Data taking efficiency
  - no major hardware/software problems
  - experienced 3 ~one hour downtime periods which affected efficiency during this short week
- Number of events collected
  - 7mln events
- Accelerator halo
  - reasonable

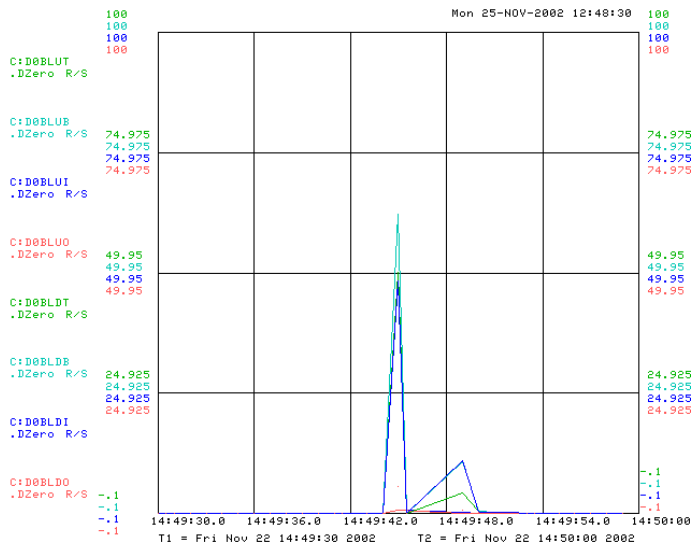


Data Taking and Triggering

- Running physics trigger list 9.3 for the last two weeks
  - stable
  - designed for luminosity in the range (5-50)10^{30}
  - optimized for high Pt data collection and physics data sample for Winter Conferences
- Trigger rates guidelines are limited by trigger/DAQ systems stability
  - L1 trigger ~0.5kHz
  - L2 trigger 0.2-0.3kHz
  - L3 trigger (to tape) ~50 Hz
- Currently most serious issues limiting our efficiency and trigger rates
  - muon readout
    - mini-drift tubes issue is understood, plan to resolve within a week
    - PDT problems are not understood yet
  - calorimeter readout
    - starts to limit operating efficiency at Level 2 rate of ~0.5kHz
- Longer term trigger rate plans
  - by January shutdown run at rates close to Run II specs for Level 2(1kHz) and Level 3(50Hz) triggers
    - if PDT and Calorimeter issues are resolved
  - Level 1 trigger output rate expected to be at ~2kHz after January shutdown (limited by Level 2 trigger processing power)
    - expect ~ doubling L1 trigger accept rate with beta commissioning - Summer 2003

Pbar Kicker Prefire on 11.22.02

- At 14:48 on 11.22.02 store was lost due to pbar kicker pre-fire
- This accident affected D0 silicon in the following way
  - tripped ~25% of HV channels (as well as some muon channels)
  - integrated dose of ~100rads
  - pulled beam abort due to high rate losses on the pbar side of the detector
    - peak rate was 60rads/sec with abort limit set at 12rads/sec
    - only pbar side BLMs detected high dose rate
- After irradiation
  - D0 was able to reset all HV trips
  - After reset and re-download all HDIs (those which were in good shape before the accident) are working properly
- This was the first radiation level related HV trip in D0 silicon over last ~8 months
  - task force to understand reasons for pre-fires should be created
  - experiments should be informed about status and plans
- Collecting data with silicon in readout since Saturday



Dmitri Denisov

Summary

- D0 experiment is progressing well with physics data taking
  - trigger list 9.3 is running on-line
  - 7 mln events collected last week
- D0 weekly data taking efficiency is steady around 75%
  - no major software/hardware problems
  - running in the "stability" region of the L1/L2 rates plot
  - in process of attacking (currently) most serious issues
    - muon MDT loss of sync and muon PDT DSP software crashes
    - other rate/efficiency limiting issues are under studies as well
  - downtime is on the level of ~7% for the week
- Starting detailed planning of the January shutdown
  - plan to perform large scale detector "opening"
    - including parts of the muon system
  - will gain access to the central area of the detector
    - minor repairs of the silicon electronics
    - access to TLDs with accurate measure of silicon irradiation
- At this moment have no access request and plan for data taking over Thanksgiving week